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EPA General Permit WAG130000 - Annual Report



Annual Report of Operations
for Year 2017

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

NPDES # for your Facility:

WAG130020

Facility & Owner Information

| | |
|--|------------------------|
| Facility Name: Keta Creek Hatchery Complex | |
| Operator Name (Permittee): Hugo Hernandez | |
| Address: 39015 172nd Ave SE Auburn WA 98092 | |
| Email: Hugo.Hernandez@muckleshoot.nsn.us | Phone: 253-876-3341 |
| Owner Name (if different from operator): Muckleshoot Indian Tribe | |
| Email: | Phone: |

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ☒ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ☒ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

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EPA General Permit WAG130000 - Annual Report

Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs): **121847.91**
Pounds of food fed to fish during the maximum month:
6072lbs

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

| Species | Fish Produced | Receiving Water(s) to which Fish were Released | Month Released/ Spawned |
|-------------|---------------|--|----------------------------|
| Chum Salmon | 3,379,359 | Crisp Creek | ~341.1 FPP |
| Coho Salmon | 705,975 | Crisp Creek | ~15 FPP |
| Coho Salmon | 486,130 | Elliot Bay Tribal Net Pen | ~20FPP |
| | | | |
| | | | |
| | | | |
| | | | |

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

| Month | Total Fish (lbs) | Fish Feed (lbs) | Month | Total Fish (lbs) | Fish Feed (lbs) |
|----------|------------------|-----------------|-----------|------------------|-----------------|
| January | 45021.11 | 5560 | July | 20719.86 | 4552.75 |
| February | 60542.22 | 6072 | August | 25405.94 | 4120 |
| March | 42942.64 | 5421.5 | September | 31553.9 | 3699 |
| April | 48682.5 | 4417 | October | 34111.91 | 3960 |
| May | 59679.29 | 3357.5 | November | 37741.44 | 3256 |
| June | 18243.09 | 2770.75 | December | 41557.76 | 2992 |

Additional Comments: During the months of February, March, April, and May fish are transferred and released.

EPA General Permit WAG130000 - Annual Report

Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

| Type of Solid Disposed | Date Disposed | Location Disposed |
|-----------------------------------|-----------------|-------------------|
| Juvenile coho | 1/1/17-12/31/17 | Upland disposal |
| Juvenile chum | 10/30/17-5/5/17 | Upland disposal |
| Solids collected in the clarifier | 9/1/17 | Tribal Landfill |
| | | |
| Additional Comments: | | |

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

| Date | Cause of Deaths | Steps Taken to Correct Problem | Pounds of Fish |
|----------------------|---|---|---------------------------------------|
| 6/19/17-12/10/17 | Parasitic or bacterial infection of unknown organism. | Ponds maintenance increased. The investigation is still in process. | KETA lost 10760 juvenile coho ~500lbs |
| | | | |
| | | | |
| | | | |
| Additional Comments: | | | |

EPA General Permit WAG130000 - Annual Report

Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

KETA Creek complex was not in compliance during the month of February 2017. The monthly DMR sample was taken while a river pump was being ran through a start up process. The sump for the pump had not been vacuumed and the TSS samples measured 7.2 mg/l that was 2.2 mg/l above the tolerance levels.

Inspections & Repairs for Production & Wastewater Treatment Systems

| Date Inspected | Date Repaired | Description of System Inspected and/or Repaired |
|----------------|---------------------|--|
| Daily | Monthly Maintenance | UV lights were inspected and burnt bulbs were replaced. |
| Daily | Weekly maintenance | Instrumentation and water filtration equipment monitored weekly. |
| | | |
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EPA General Permit WAG130000 - Annual Report

Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.

Describe the use of each drug/chemical in more detail on the following pages.

| Used in the past year? | Drug or Chemical |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Azithromycin |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Chloramine-T: <i>See additional reporting requirements on page 7</i> |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Chlorine |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Draxxin |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Erythromycin - injectable |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Erythromycin - medicated feed |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Florfenicol (Aquaflor) |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Formalin - 37% formaldehyde: <i>See additional reporting requirements on page 7</i> |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Herbicide - describe: |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Hormone - describe: |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Hydrogen Peroxide: <i>See additional reporting requirements on page 7</i> |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Iodine: <i>See additional reporting requirements on page 7</i> |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Oxytetracycline |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Potassium Permanganate: <i>See additional reporting requirements on page 7</i> |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Romet |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | SLICE (emamectin benzoate) |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Sodium Chloride - salt |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Vibrio vaccine |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Other: |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Other: |

EPA General Permit WAG130000 - Annual Report

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

| | | | |
|---|---|---|--|
| Brand Name: Parasite-S | | Generic Name: Formalin | |
| Reason for use: Disinfectant | | | |
| <input checked="" type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed | Total quantity of formulated product per treatment (specify units): Ranges | Total quantity of formulated product used in past year (specify units): 667.92 Liters | |
| Date(s) of treatment: January 2017-December 2017 | | | Total number of treatments in past year: 246 |
| Maximum daily volume of treated water: 280 Gallons | Treatment concentration (specify units): .04L-2.2L | Duration and frequency of treatment(s): 10-15 minutes | |
| Method of application: | | | |
| <input type="checkbox"/> Static Bath <input checked="" type="checkbox"/> Flow-through | | <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe): | |
| Location in facility chemical was used (check all that apply): | | | |
| <input type="checkbox"/> Raceways <input checked="" type="checkbox"/> Incubation building | | <input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin <input type="checkbox"/> Other (describe): | |
| Where did water treated with this chemical go? (check all that apply): | | | |
| <input type="checkbox"/> Discharged w/o treatment <input checked="" type="checkbox"/> Settling basin | | <input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works <input type="checkbox"/> Other (describe): | |
| Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: All water used for incubation treatment discharges from a clarifier and mixes with EF water | | | |

| | | | |
|---|--|--|--|
| Brand Name: Bio-Oregon Feed | | Generic Name: AquaFlor | |
| Reason for use: | | | |
| <input type="checkbox"/> Preventative/Prophylactic <input checked="" type="checkbox"/> As-needed | Total quantity of formulated product per treatment: Depends on FPP and DI | Total quantity of formulated product used in past year (specify units): 1946.75 lbs | |
| Date(s) of treatment: 3/23/17-6/16/17 | | | Total number of treatments in past year: 2 |
| Maximum daily volume of treated water: 4167.89 | Treatment concentration (specify units): 15 mgs/kg | Duration and frequency of treatment(s): 14 days at 5 feedings a day | |
| Method of application: | | | |
| <input type="checkbox"/> Static Bath <input type="checkbox"/> Flow-through | | <input checked="" type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe): | |
| Location in facility chemical was used (check all that apply): | | | |
| <input type="checkbox"/> Raceways <input type="checkbox"/> Incubation building | | <input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin <input checked="" type="checkbox"/> Other (describe): Rearing Circulars | |
| Where did water treated with this chemical go? (check all that apply): | | | |
| <input type="checkbox"/> Discharged w/o treatment <input checked="" type="checkbox"/> Settling basin | | <input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works <input checked="" type="checkbox"/> Other (describe): DF to EF lin Clarifier | |
| Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: Effluent water passes through the drum filter and solids are sent to the clarifier. | | | |

EPA General Permit WAG130000 - Annual Report

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

| Static Bath Treatments | | |
|--|--|----------------------|
| Tank Volume | 189 | Liters |
| Desired Static Bath Treatment Concentration | 100 | µg/L |
| Volume of Product Needed | 1.8 | Liters Product |
| Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient | Solution: 1:100 dilution-100 ppm Active Ingredient: 10% Povidone Iodine | Specify Units |
| Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day | 4977.816 LPM | Specify Units |
| Maximum % of Facility Discharge Treated | .038 | % of Total Discharge |
| Flow-Through Treatments | | |
| Tank Volume | 1059.91 | Liters |
| Calculated Flow Rate | 5618.74 | Liters/Minute |
| Duration of Treatment | 15 | Minutes |
| Desired Flow-Through Treatment Concentration of Product | 1,660,000 | µg/L |
| Amount of Product to Add Initially | 2.24 | Liters Product |
| Amount of Product to Add During Treatment | 40 | mL/Minute |
| Total Volume of Product Needed | 2.24 | Liters Product |
| Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient | Solution: 22400 ml Active Ingredient: 13.43 ppm | Specify Units |
| Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day | 1484.83 GPM | Specify Units |
| Maximum % of Facility Discharge Treated | 5.3 | % of Total Discharge |

EPA General Permit WAG130000 - Annual Report

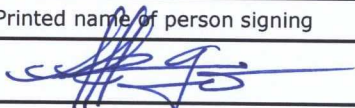
Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.

There has been no changes to the hatchery facility or operations since the 2017 annual report.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|---|--------------------------------|
| <i>HUGO HERNANDEZ</i> | <i>Green River Team Leader</i> |
| Printed name of person signing | Title |
|  | <i>02/05/2018</i> |
| Applicant Signature | Date Signed |

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191
Washington Hatchery Annual Report
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

| Date | ML used | Amount of Stacks | Formalin dripped | Formalin (l) | Minutes treated | GPM being treated | Gallons per treatment |
|-------|---------|------------------|------------------|--------------|-----------------|-------------------|-----------------------|
| 43058 | 22400 | 56 | 2240 | 2.24 | 10 | 5 | 50 |

| Total flow through vessel | Total flow through Keta | Effluent flow through Gallons | Liters of effluent per minute |
|---------------------------|-------------------------|-------------------------------|-------------------------------|
| 280 | 1059.9148 | 1484.83 | 5618.745203 |

| PPM Concentration at the Heath tray | PPM in Effluent | Clarifier in liters | Flow leaving clairifier | PPM at Discharge | Sampler |
|-------------------------------------|-----------------|---------------------|-------------------------|------------------|---------|
| 2113.377415 | 398.6655239 | 169900.557 | 189.2705 | 13.42926584 | EH |